



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,428	02/07/2002	Timothy D. Kolar	1014-015US01	2969

28863 7590 04/05/2005
SHUMAKER & SIEFFERT, P. A.
8425 SEASONS PARKWAY
SUITE 105
ST. PAUL, MN 55125

EXAMINER

CLARK, ISAAC R

ART UNIT PAPER NUMBER

2154

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,428

Applicant(s)

KOLAR ET AL.

Examiner

Isaac R Clark

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/05/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-37 are presented for examination.

Priority

2. The effective filing date for the subject matter in the pending claims in this application is 02/07/2002.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the vertical broken line illustrating justification of the text blocks as described in the specification (See page 11, lines 15-18 and Fig. 6). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 37 is objected to because of the following informalities:
 - a. As per claim 37, the word "remote" is misspelled as "remove".Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1, 2, 4, 5, 8-10, 12, 13, 15-17, 19, 20, 23, 24, 26-28, 30, 31, 35 and 36 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art (AAPA).

7. As per claim 1, AAPA discloses a method comprising:
receiving configuration input having text defining a data channel and one or more data sub-channels within a network link (Applicant's specification page 3, lines 1-6), wherein the text includes references that hierarchically relate the data channel and the data sub-channels (page 3, lines 7-30; where references are interface lines at head of text boxes. Nesting and numbers associated with references indicate hierarchy); and

configuring a network device according to the configuration input (page 3, lines 4-5).

8. As per claim 2, AAPA discloses a method comprising the method of claim 1, wherein the references identify text blocks within the configuration input (page 3, lines 7-30; references delineate the beginning of a text block).

9. As per claim 4, AAPA discloses a method comprising the method of claim 2, wherein the text blocks include a first text block (page 3, beginning at "interface oc12-1/1/1 {" continuing to matching end bracket) and a second text block (page 3, beginning at "interface ds3-1/1/1:0 {" and continuing to matching end bracket), wherein the first text block includes configuration data for the data channel and a reference to a first data sub-channel, and wherein the second text block includes configuration data for the first data sub-channel (page 3, lines 5-6).

10. As per claim 5, AAPA discloses a method comprising the method of claim 1, further comprising displaying a representation of the configuration input to a user (page 4, last two sentences of final paragraph; display presented to administrator who enters the input).

11. As per claim 8, AAPA discloses a method comprising the method of claim 1, wherein configuring the network device comprises configuring an interface of the network device to channelize input and output data according to the configuration input (specification, page 1, last paragraph; page 2, last two paragraphs; channelization accomplished by using input to configure router).

12. As per claim 9, AAPA discloses a method comprising the method of claim 1, further comprising routing packets based on the configuration information (page 1, second paragraph of "Background").

13. As per claim 10, AAPA discloses a method comprising the method of claim 1, wherein receiving configuration input comprises receiving configuration input from a user via a local interface (page 3, lines 1-2).

14. As per claim 12, AAPA discloses a method comprising the method of claim 1, wherein the configuration input includes labels for the text of the data sub-channels, and each label comprises the respective reference concatenated with one or more channel identifiers according to the hierarchical relationships of the data channel and the data sub-channels (page 3, lines 7-30; labels at head of each text block is reference concatenated with numeration scheme that indicates the hierarchy of the channel description).

15. Claims 13, 15 and 16 recite a computer readable medium storing the configuration text described in claims 1, 4, and 12. AAPA describes the configuration text being entered and displayed inherently requiring storage on a medium. Claims 13, 15, and 16 are rejected for the same reasons as claims 1, 4, and 12.

16. As per claim 17, AAPA discloses a network device comprising: a computer-readable medium to store configuration input having text blocks defining a data channel and at least one data sub-channel (Applicant's specification page 3, lines 1-6), wherein the text blocks include references relating the data channel and the sub-channel (page 3, lines 7-30; where references are interface lines at head of text

boxes. Nesting and numbers associated with references indicate hierarchy); and a control unit to communicate data over a channelized network link according to the configuration input (Specification page 1, second and third paragraphs of background; page 3, first paragraph).

17. As per claim 19, AAPA discloses the network device of claim 17, further comprising a configuration module to receive the configuration input from a user (page 4, last two sentences of final paragraph; display presented to administrator who enters the input).

18. As per claim 20, AAPA discloses the network device of claim 17, wherein the configuration module receives the configuration via a local interface (Specification page 3, lines 1-2).

19. As per claim 23, AAPA discloses the network device of claim 17, wherein the configuration input includes a first channel definition block having configuration data for the data channel and a reference to a first sub-channel (page 3, beginning at "interface oc12-1/1/1 {" continuing to matching end bracket), and a second channel definition block having configuration data for the first data sub-channel (page 3, beginning at "interface ds3-1/1/1:0 {" and continuing to matching end bracket).

20. As per claim 24, AAPA discloses the network device of claim 17, wherein the references hierarchically relate the data channel and the sub-channels (page 3, lines 7-30; where references are interface lines at head of text boxes. Nesting and numbers associated with references indicate hierarchy; page 3, lines 5-6).

21. As per claim 26, AAPA discloses the network device of claim 17, wherein the control unit comprises: a routing engine to store routing information representing a topology of a network; and a packet-forwarding engine to store packet-forwarding information in accordance with the routing information (Specification, page 2, last paragraph; router configuration information includes path and mapping options; page 1; router maintains routing information that describes routes through network and forwards packet).

22. Claims 27, 28, 30, 31, 35, and 36 are rejected for the same reasons as claims 1, 2, 4, 5, 26, and 10 respectively.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2154

25. Claims 3, 6, 11, 18, 21, 25, 29, 32, 34, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Nulu et al. (US 6,650,347, "Nulu").

26. As per claims 3 and 25, AAPA teaches the method of claim 2 and the network device of claim 17, but does not explicitly teach resolving the references to the text blocks within the configuration input; and constructing a hierarchical data structure to store the configuration input based on the resolution of the references.

27. Nulu teaches resolving the references to the text blocks within the configuration input; and constructing a hierarchical data structure to store the configuration input based on the resolution of the references (Fig.2 and Fig. 3, visual display depicts the hierarchical).

28. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of AAPA and Nulu because they both with configuring sub-channels within channels in a data network. Furthermore, the teaching of Nulu to resolve the references within the configuration to construct a hierarchical data structure based on the resolution of the increase the efficiency of managing network configuration by providing a visualize depiction of the hierarchical relationships (See Nulu, col. 6, lines 18-22).

29. As per claim 6, AAPA teaches the method of claim 5, but does not explicitly teach displaying a representation comprises justifying the text at or near a common margin within a display.

30. Nulu teaches wherein displaying a representation comprises justifying the text at or near a common margin within a display (Fig.3; col. 6, lines 5-10; col. 6, lines 23-28).

31. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of AAPA and Nulu because they both with configuring sub-channels within channels in a data network. Furthermore, the teaching of Nulu to justify the configuration input at or near a common margin would increase the efficiency of use of the display by minimizing the amount of horizontal scrolling necessary to visualize the hierarchical relationships (See Nulu, col. 6, lines 18-22).

32. As per claims 11 and 21, AAPA teaches the method of claim 1 and the network device of claim 17 including receiving configuration input from a user (Specification page 3, lines 1-2), but does not explicitly teach receiving configuration input from a remote user via a network connection.

33. Nulu teaches receiving configuration input from a user via a network connection (col. 1 line 64-col. 2, line 5).

34. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of AAPA and Nulu because they both with configuring sub-channels within channels in a data network. Furthermore, the teaching of Nulu to provide configuration input from a remote user via a network connection would increase the efficiency of managing the network by providing a central location for configuring and managing (See Nulu, col. 2, lines 3-4).

35. As per claim 18, AAPA teaches the network device substantially as claimed in claim 17, but does not explicitly teach further comprising an interface card for coupling

Art Unit: 2154

to the network link, wherein the control unit configures the interface card according to the configuration input.

36. Nulu teaches configuring configures the interface card according to the configuration input (col. 9. lines 30-55).

37. It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of AAPA and Nulu because they both with configuring sub-channels within channels in a data network. Furthermore, the teaching of Nulu to configure the interface card according to the configuration input allows efficient set configuration of sub channels by allowing an administrator to manipulate the configuration from a visual display confirming the desired setup.

38. As per claim 29, claim 29 is rejected for the same reasons as claim 3.

39. As per claim 32, claim 32 is rejected for the same reason as claim 6.

40. As per claim 34, claim 34 is rejected for the same reason as claim 18.

41. As per claim 37, claim 37 is rejected for the same reason as claim 11.

42. Claims 7, 14, 22, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) as applied to claims 1, 13, 17, and 27 above and further in view of 'Official Notice'.

43. As per claims 7, 14, 22, and 33, AAPA does not teach wherein the references comprise user-defined names for the data channel and data sub-channels. However the hierarchical notation including user-defined names for channels and sub-channels is functionally equivalent to the notation described in the AAPA (page 3) and is completely analogous to the use of user-defined names for describing programs in terms of user

named functions and sub functions to accomplish a maintainable hierarchical, top down design. One of ordinary skill in the art would have been motivated to use user-defined names for the channels and sub-channels to increase the efficiency of design and to facilitate maintaining and changing the configuration input.

Conclusion

44. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Network device channel configuration".

- | | | | |
|-----|--------------------|------------------|--|
| i. | US 6,744,446 B1 | Bass et al. | Hierarchical display
of channelized network |
| ii. | US 2003/0101248 A1 | Tofinetti et al. | Administration of
channelized network |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac R Clark whose telephone number is (571)272-3961. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IRC

LARRY D. DONAGHUE
PRIMARY EXAMINER

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.